BookletChart™

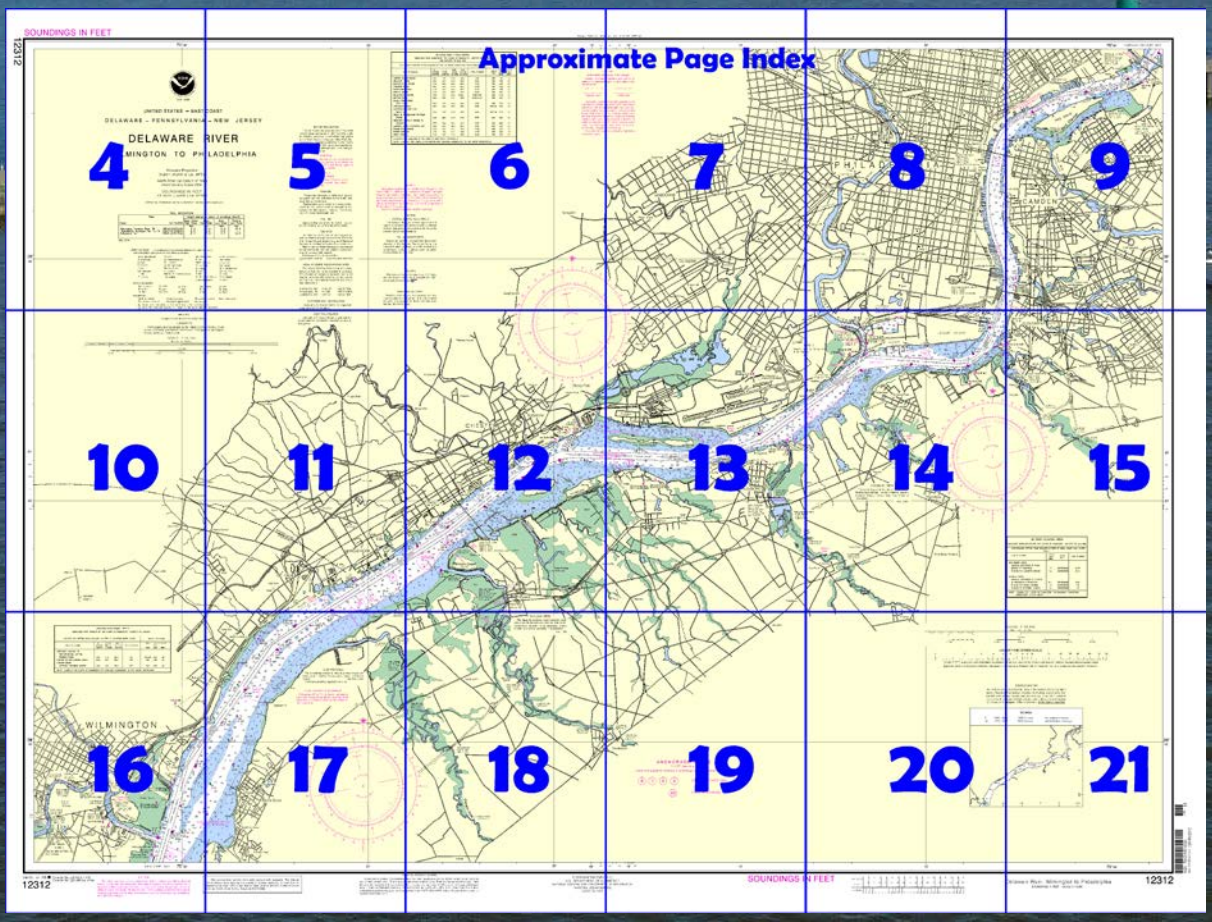
Wilmington to Philadelphia

NOAA Chart 12312

A reduced-scale NOAA nautical chart for small boaters

When possible, use the full-size NOAA chart for navigation.

- *Complete, reduced-scale nautical chart*
- *Print at home for free*
- *Convenient size*
- *Up-to-date with Notices to Mariners*
- *Compiled by NOAA's Office of Coast Survey, the nation's chartmaker*



Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at http://www.NauticalCharts.NOAA.gov.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=12312

(Selected Excerpts from Coast Pilot)
Edgemoor. The wharves of the E.I. duPont de Nemours Co., Edgemoor Plant, have depths of 20 feet at their outer ends.
A dike with its outer end submerged extends 0.3 mile offshore from
Oldmans Creek has an unmarked channel leading from the Delaware River to the mouth of the creek. In 1973, extensive shoaling was reported at the entrance to and throughout Oldmans Creek. Mariners should exercise extreme caution when transiting this area.
A vertical-lift bridge and two swing bridges cross the creek between the mouth and **Pedricktown**; all are kept in a closed position. The limiting clearance of the bridges is 1 foot at the second bridge.

Raccoon Creek.–The approach is a dredged channel that extends west-southwestward through the shallow flats for 1.1 miles from the mouth. The approach channel is marked by buoys, and a light marks the outer end of the rock jetty on the south side of the entrance.
The U.S. Route 130 bridge at **Bridgeport** has a vertical-lift span with clearance of 4 feet down. The ConRail bridge 0.3 mile above the highway bridge has a clearance of 7 feet.
Between Bridgeport and **Swedesboro** the least bridge clearances are: swing bridge, 6 feet vertical; fixed bridges, 8 feet vertical. The railroad bridge above the mouth of **Chester Creek** has a clearance of 1½ feet. Above that point, navigation is restricted by the 6-foot minimum clearance of the fixed bridges. Navigation is suitable only for very shallow-draft boats to the second bridge.
The current velocity is 1.7 knots on the flood and 2.2 knots on the ebb off **Eddystone**.
Essington has boatyards that can provide berths, fuel, and supplies. An unmarked channel parallel to and 450 feet from the centerline of the dike has a controlling depth of 5½ feet; shoals are on both sides of the channel. Local vessels usually pass the west end of the island where the controlling depth is 9 feet.
A **special anchorage**.–Depths are 9 to 20 feet in the anchorage. The current velocity is about 1.3 knots. In 1978, a piling was reported in the anchorage area 0.5 mile eastward of the entrance to Darby Creek. Gasoline, diesel fuel, water, ice, berths, and marine supplies are available along the Essington waterfront.
A **general anchorage** is between Thompson Point and Crab Point and the south side of the main channel. The current velocity is about 2 knots a half-mile east of Crab Point.
The Mantua Creek entrance jetties are marked by lights, and the entrance channel is marked by buoys. In August 1998, the centerline controlling depth in the dredged channel was 11 feet for 0.7 mile above the mouth; thence in 1981, 7 feet **Friars Landing**, thence 4½ feet **Parkers Landing**, and thence less than 1 foot to Mantua.
A **general anchorage** is on the southeasterly side of the main channel above the entrance to Mantua Creek. The current velocity is about 2 knots in the channel opposite the anchorage.
Anchorages.–Vessels must not anchor in Christina River channel within the city limits of Wilmington or tieup at any wharf more than two abreast without permission of the harbor commissioners. A general anchorage is off Deepwater Point, south of the river entrance. (See **110.1 and 110.157(a)(7) and (b),** chapter 2, for limits and regulations, and page 391 for **Wilmington climatological table.)**
Quarantine is enforced in accordance with regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.) Vessels subject to boarding for quarantine inspection are required to anchor off Marcus Hook boarding station, 7 miles up the Delaware River from Wilmington. Wilmington is a **customs port of entry.**
Local magnetic disturbance.–Differences of 2° to 5° from normal variation have been observed astride the Delaware River Channel from Oldmans Point to the mouth of Oldmans Creek.
On the southeast side of the main ship channel opposite Marcus Hook is a **general anchorage** with a preferential area for vessels awaiting quarantine inspection. (See **110.1 and 110.157(a)(8) and (b),** chapter 2, for limits and regulations.)
Currents.–The current velocity is about 1.7 knots at Marcus Hook. Chester is a **customs port of entry**.

U.S. Coast Guard Rescue Coordination Center
24 hour Regional Contact for Emergencies

RCC Norfolk	Commander 5th CG District Norfolk, VA	(575) 398-6231

Table of Selected Chart Notes

NOTE E
BETSY ROSS FIXED BRIDGE
HOR CL 400 FT
VERT CL 140 FT
FOR CHANNEL WIDTH

NOTE D
Depths refer to Christina River Datum.

HEIGHTS
Heights in feet above Mean High Water.

Mercator Projection
Scale 1:40,000 at Lat. 39°51'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

LOCAL MAGNETIC DISTURBANCE
Differences of 2° to 5° from the normal variation have been observed astride the Delaware River Channel from Oldmans Point to the mouth of Oldmans Creek.

RADAR REFLECTORS
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

CAUTION
SUBMARINE PIPELINES AND CABLES
Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:

Pipeline Area

Cable Area

Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.
Covered wells may be marked by lighted or unlighted buoys.

CAUTION
Mariners are warned to stay clear of the protective riprap surrounding navigational light structures shown thus:

CAUTION
BASCULE BRIDGE CLEARANCES
For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

NOAA WEATHER RADIO BROADCASTS
The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Atlantic City, NJ	KHB-38	162.400 MHz
Philadelphia, PA	KIH-28	162.475 MHz
Sudlersville, MD	WXK-97	162.500 MHz

HORIZONTAL DATUM
The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.405" northward and 1.318" eastward to agree with this chart.

CAUTION
Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

CAUTION
Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.
During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

CAUTION
Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.
Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.
Station positions are shown thus:
⊙(Accurate location) o(Approximate location)

WARNING
The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

AUTHORITIES
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

SOURCE DIAGRAM
The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

ANCHORAGE AREAS
110.157 (see note A)

Limits and assigned numbers of anchorage areas are shown in magenta.

6 7 8 9 GENERAL ANCHORAGES

10 NAVAL ANCHORAGE

CHRISTINA RIVER CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO SEP 2012

NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) LEFT OUTSIDE QUARTER	MIDDLE HALF OF CHANNEL	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	PROJECT DIMENSIONS WIDTH (FEET)	LENGTH (NAUT MILES)	DEPTH MLLW (FEET)
DELAWARE RIVER TO THE UPPER END OF THE TURNING BASIN	34.0	33.0	36.0	9-12	500-340	0.70	38
THENCE TO LOBDELL CANAL	35.0	34.0	34.0	9-12	400	0.33	35
TURNING BASIN		A37.0		9-12	320	0.34	38
LOBDELL CANAL TO BRANDYWINE CR.		4.5		9-11	250	0.68	21
BRANDYWINE CR. TO MARKET ST.		B0.7		9-11	200	1.24	21
MARKET ST. TO 39°43'38"N, 75°33'40"W		C1.3		9-11	200	0.78	21
THENCE TO END OF CHANNEL		6.7		9-11	200	0.12	10

A. REPORTED DEPTH IS FOR FULL WIDTH OF BASIN.
B. 0.7' DEPTH OBSERVED 27' INSIDE THE LEFT TOELINE OF THE CHANNEL. SURVEY WAS PERFORMED AT HIGH TIDE.
C. 1.3' DEPTH OBSERVED 22' WITHIN THE LEFT TOELINE OF THE CHANNEL. SURVEY WAS PERFORMED AT HIGH TIDE.
NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

A Dam

DELAWARE RIVER CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUL 2012

NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW) LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	PROJECT DIMENSIONS WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
CHERRY ISLAND RANGE	41.7	42.1	42.0	42.1	4-12	800	4.33	40
BELLEVUE RANGE	39.2	40.6	42.2	40.0	4-12	800	3.05	40
MARCUS HOOK RANGE	36.6	38.8	40.7	41.4	4-12	800	4.25	40
CHESTER RANGE	33.4	40.1	40.7	40.4	3-12	800	1.82	40
EDDYSTONE RANGE	39.0	41.6	41.5	39.3	3-12	800	1.08	40
TINICUM RANGE	36.3	40.4	40.4	37.9	2-12	800	3.03	40
BILLINGSPORT RANGE	40.5	41.8	42.6	33.0	2-12	800	1.15	40
MIFFLIN RANGE	37.0	41.1	41.7	39.2	2-12	800	2.83	40
EAGLE POINT RANGE	36.7	41.3	40.2	40.0	1-12	800	1.74	40
HORSESHOE BEND	35.3	39.7	44.3	39.3	1-12	800-500	0.80	40
EAST HORSESHOE RANGE AND REACH M	36.8	39.7	41.2	43.0	1-12	500-400	1.19	40
REACH M TO BENJAMIN FRANKLIN BRIDGE	19.2	36.9	38.8	37.3	2-12	400	2.95	40
BENJAMIN FRANKLIN BRIDGE TO CAMBRIA ST	26.6	39.6	40.6	40.1	7-12	400	2.00	40
CAMBRIA ST TO ALLEGHENY AVE	38.3	37.9	37.2	33.3	6-12	400	0.42	40
HARBOR RANGE	36.4	36.9	37.2	36.1	2-12	400	0.70	40
FISHER CHANNEL	39.5	43.3	44.1	42.2	2-12	400	0.31	40
DRAW CHANNEL	37.1	42.4	43.2	40.2	2-12	400	0.74	40

NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

SOUNDINGS IN FEET

12312

75°30'

THE NATION'S CHARTMAKER SINCE 1807

UNITED STATES – EAST COAST

DELAWARE – PENNSYLVANIA – NEW JERSEY

DELAWARE RIVER

WILMINGTON TO PHILADELPHIA

Mercator Projection
Scale 1:40,000 at Lat. 39°51'

North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET
AT MEAN LOWER LOW WATER

Additional information can be obtained at nauticalcharts.noaa.gov.

TIDAL INFORMATION

PLACE		Height referred to datum of soundings (MLLW)		
NAME	(LAT/LONG)	Mean Higher High Water	Mean High Water	Mean Low Water
		feet	feet	feet
Billingsport, Delaware River, NJ	(39°51'N/75°15'W)	6.2	5.8	0.2
Philadelphia, Municipal Pier 11, PA	(39°57'N/75°08'W)	6.8	6.4	0.2
Wilmington, Christina River, DE	(39°43'N/75°31'W)	5.9	5.5	0.2

Dashes (- - -) located in datum columns indicate unavailable datum values for a tide station. Real-time water levels, tide predictions, and tidal current predictions are available on the Internet from http://tidesandcurrents.noaa.gov.

(Apr 2012)

ABBREVIATIONS (For complete list of Symbols and Abbreviations, see Chart No. 1.)

Aids to Navigation (lights are white unless otherwise indicated):

AERO aeronautical
Al alternating
B black
Bn beacon
C can
DIA diaphone
F fixed
Fl flashing
G green
IQ interrupted quick
Iso isophase
LT HO lighthouse
M nautical mile
m minutes
MICRO TR microwave tower
Mkr marker
Mo morse code
N nun
OBSC obscured
Oc occulting
Or orange
Osc oscillating
Q quick
R red
Ra Ref radar reflector
R Bn radiobeacon
R TR radio tower
Rot rotating
s seconds
SEC sector
St M statute miles
VQ very quick
W white
WHIS whistle
Y yellow

Bottom characteristics:

Blds boulders
bk broken
Cy clay
Co coral
G gravel
Grs grass
gy gray
h hard
M mud
Oys oysters
Rk rock
S sand
so soft
Sh shells
sy sticky

Miscellaneous:

AUTH authorized
ED existence doubtful
Obstn obstruction
PA position approximate
PD position doubtful
Rep reported
Subm submerged

(21) Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

HEIGHTS

Heights in feet above Mean High Water.

AUTHORITIES

Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

39° 55'

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SCALE 1:40,000
Nautical Miles

4

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:40,000~~

Nautical Miles: 1 ½ 0 1 2 3

Yards: 1000 0 1000 2000 3000 4000 5000

See Note on page 5.

25' 20'

DELAWARE RIVER CHANNEL DEPTHS

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - REPORT OF JUL 2012

NAME OF CHANNEL	CONTROLLING DEPTHS FROM SEAWARD IN FEET AT MEAN LOWER LOW WATER (MLLW)					PROJECT DIMENSIONS		
	LEFT OUTSIDE QUARTER	LEFT INSIDE QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (NAUT. MILES)	DEPTH MLLW (FEET)
CHERRY ISLAND RANGE	41.7	42.1	42.0	42.1	4-12	800	4.33	40
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HORIZONTAL DATUM

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WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

CAUTION

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During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

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Improved channels shown by broken lines are subject to shoaling, particularly at the edges.

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Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
⊙(Accurate location) o(Approximate location)

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Atlantic City, NJ	KHB-38	162.400 MHz
Philadelphia, PA	KIH-28	162.475 MHz
Sudlersville, MD	WXK-97	162.500 MHz

SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 3 for important supplemental information.

AIDS TO NAVIGATION

Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 3. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 5th Coast Guard District in Portsmouth, Virginia or at the Office of the District Engineer, Corps of Engineers in Philadelphia, Pennsylvania.

Refer to charted regulation section numbers.

CAUTION

BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

POLLUTION REPORTS

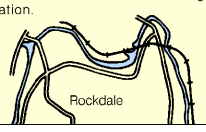
Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION

Mariners are warned to stay clear of the protective riprap surrounding navigational light structures shown thus:

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.



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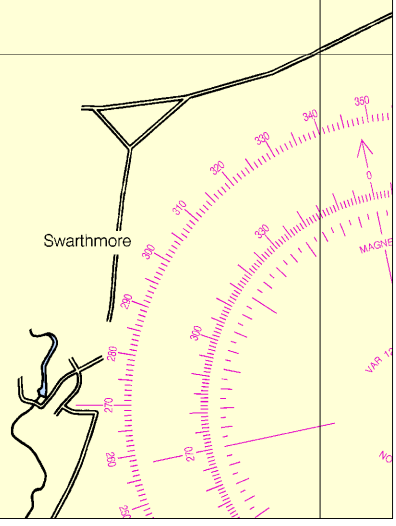

Joins page 6

This BookletChart was reduced to 75% of the original chart scale. The new scale is 1:53333. Barscales have also been reduced and are accurate when used to measure distances in this BookletChart.

25' 20' 19' 45'

DELAWARE RIVER CHANNEL DEPTHS

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NOTE - CONSULT THE CORPS OF ENGINEERS FOR CHANGES SUBSEQUENT TO THE ABOVE INFORMATION

CAU
SUBMARINE PIPE
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Pipeline Area

Additional uncharte submarine cables ma this chart. Not all subr marine cables are re those that were orig become exposed. Ma caution when operati water comparable to t pipelines and cable anchoring, dragging,
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XK-97 162.500 MHz

L INFORMATION
st Pilot 3 for important
tion.

NAVIGATION
st Guard Light List for
ion concerning aids to

ale

Joins page 5

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 3. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 5th Coast Guard District in Portsmouth, Virginia or at the Office of the District Engineer, Corps of Engineers in Philadelphia, Pennsylvania.

Refer to charted regulation section numbers.

CAUTION

BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION

Mariners are warned to stay clear of the protective riprap surrounding navigational light structures shown thus:

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

Springfield

Swarthmore

MAGNETIC

VAR 12°00'W(2012)

NO ANNUAL CHANGE

Joins page 12

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:40,000~~

Nautical Miles: 1 ½ 0 1 2 3

Yards: 1000 0 1000 2000 3000 4000 5000

See Note on page 5.

This BookletChart has been updated through: Coast Guard Local Notice To Mariners: 0413 1/22/2013,
NGA Weekly Notice to Mariners: 0413 1/26/2013,
Canadian Coast Guard Notice to Mariners: n/a.

8

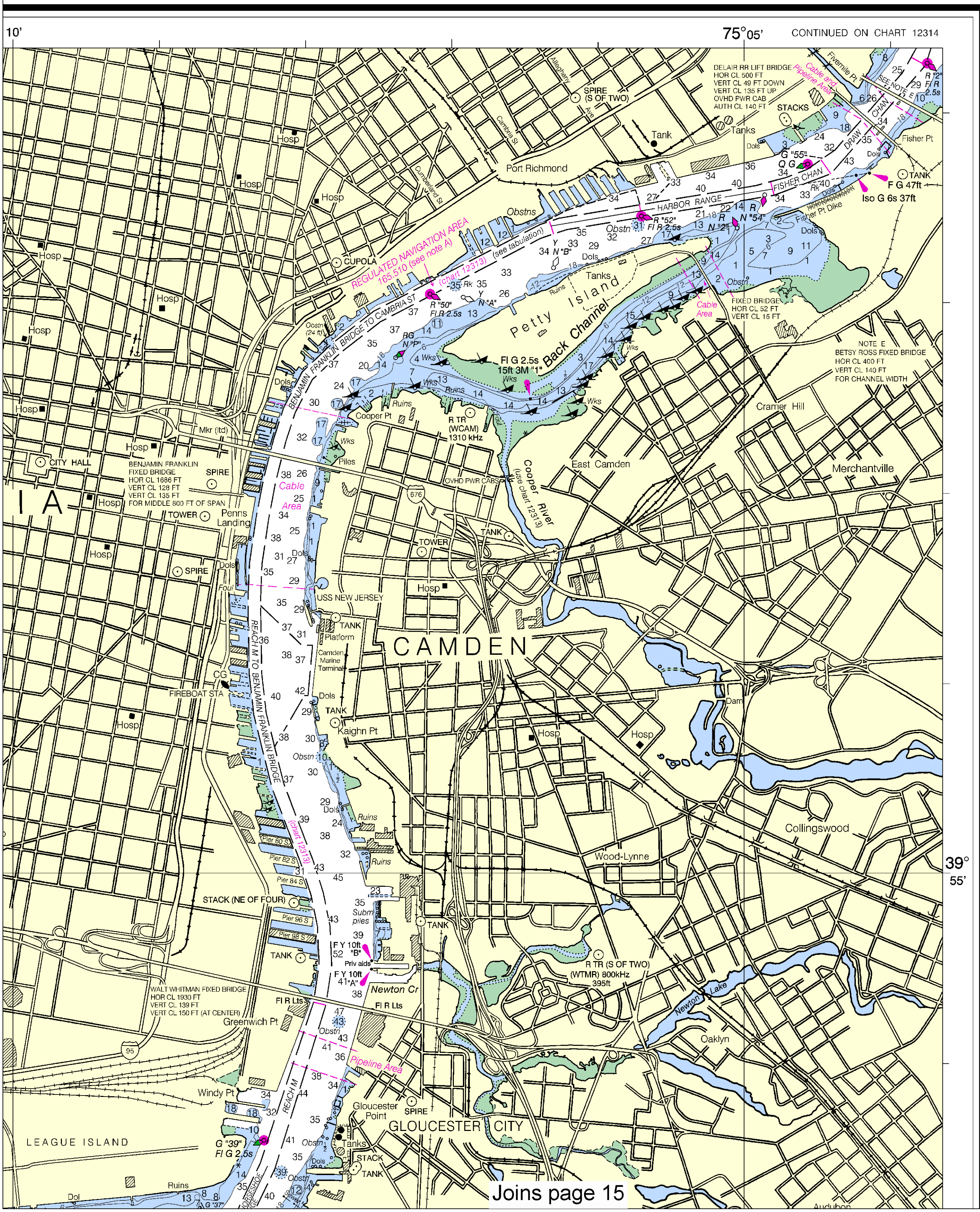
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:40,000~~

Nautical Miles: 1 ½ 0 1 2 3

Yards: 1000 0 1000 2000 3000 4000 5000

See Note on page 5.


10'
75°05'
CONTINUED ON CHART 12314
DELAIR RR LIFT BRIDGE
HOR CL 500 FT
VERT CL 49 FT DOWN
VERT CL 135 FT UP
OVHD PWR CAB
AUTH CL 140 FT
Cable and Pipeline Area
Fivemile Pt
SEE NOTE E
STACKS
Tanks
Tank
SPIRE (S OF TWO)
Port Richmond
Fisher Pt
TANK
F G 47ft
Iso G 6s 37ft
FISHER CHAN
HARBOR RANGE
Fisher Pt Dike
G "55" Q G
R "52" Fl R 2.5s
R N "54"
R N "2"
Obstns
REGULATED NAVIGATION AREA 165.510 (see note A)
(see tabulation)
(chart 12313)
CUPOLA
R "50" Fl R 2.5s
Y N "B"
Y N "A"
Tanks
Petty Island
Back Channel
RG N "P"
Fl G 2.5s 15ft 3M "1"
FIXED BRIDGE
HOR CL 52 FT
VERT CL 15 FT
Cable Area
NOTE E
BETSY ROSS FIXED BRIDGE
HOR CL 400 FT
VERT CL 140 FT
FOR CHANNEL WIDTH
Cramer Hill
Merchantville
BENJAMIN FRANKLIN BRIDGE TO CAMBRIA ST
Cooper Pt
R TR (WCAM) 1310 kHz
Mkr (ltd)
CITY HALL
BENJAMIN FRANKLIN
FIXED BRIDGE
HOR CL 1686 FT
VERT CL 128 FT
VERT CL 135 FT
FOR MIDDLE 800 FT OF SPAN
SPIRE
TOWER
Penns Landing
OVHD PWR CABS
Cooper River (use chart 12313)
East Camden
TANK
TOWER
IA
USS NEW JERSEY
CAMDEN
Platform
Camden Marine Terminal
FIREBOAT STA
REACH M TO BENJAMIN FRANKLIN BRIDGE
Kaighn Pt
Dam
Collingswood
Wood-Lynne
39°
55'
STACK (NE OF FOUR)
Pier 80 S
Pier 82 S
Pier 84 S
Pier 96 S
Pier 98 S
Subm piles
F Y 10ft "B"
Priv aids
F Y 10ft "A"
Newton Cr
Fl R Lts
R TR (S OF TWO)
(WTMR) 800kHz 395ft
WALT WHITMAN FIXED BRIDGE
HOR CL 1930 FT
VERT CL 139 FT
VERT CL 150 FT (AT CENTER)
Greenwich Pt
Newton Lake
Oaklyn
Pipeline Area
Windy Pt
REACH M
Gloucester Point
SPIRE
GLOUCESTER CITY
LEAGUE ISLAND
G "39" Fl G 2.5s
STACK
TANK
Ruins
Joins page 15
Audubon

Joins page 4

Obstn obstruction PD position doubtful Subm submerged
ED existence doubtful PA position approximate Rep reported
21 Wreck, rock, obstruction, or shoal swept clear to the depth indicated.
(2) Rocks that cover and uncover, with heights in feet above datum of soundings.

HEIGHTS
Heights in feet above Mean High Water.

AUTHORITIES
Hydrography and topography by the National Ocean Service, Coast Survey, with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

SCALE 1:40,000

Nautical Miles
1 ½ 0 1 2 3

Yards
1000 0 1000 2000 3000 4000 5000

51'
45"
30"
15"
50'
50"

Chelsea
Booths Corner
Zebleys Corner
Ogden
Ways Corner
Hanbys Corner
PENNSYLV
DELAWA
TANK
Talleyville
Talleys Corner
Arden
Claymont
TANK
McDaniel Heights
Piles
Piles
18
26

CHRISTINA RIVER CHANNEL DEPTHS
TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS

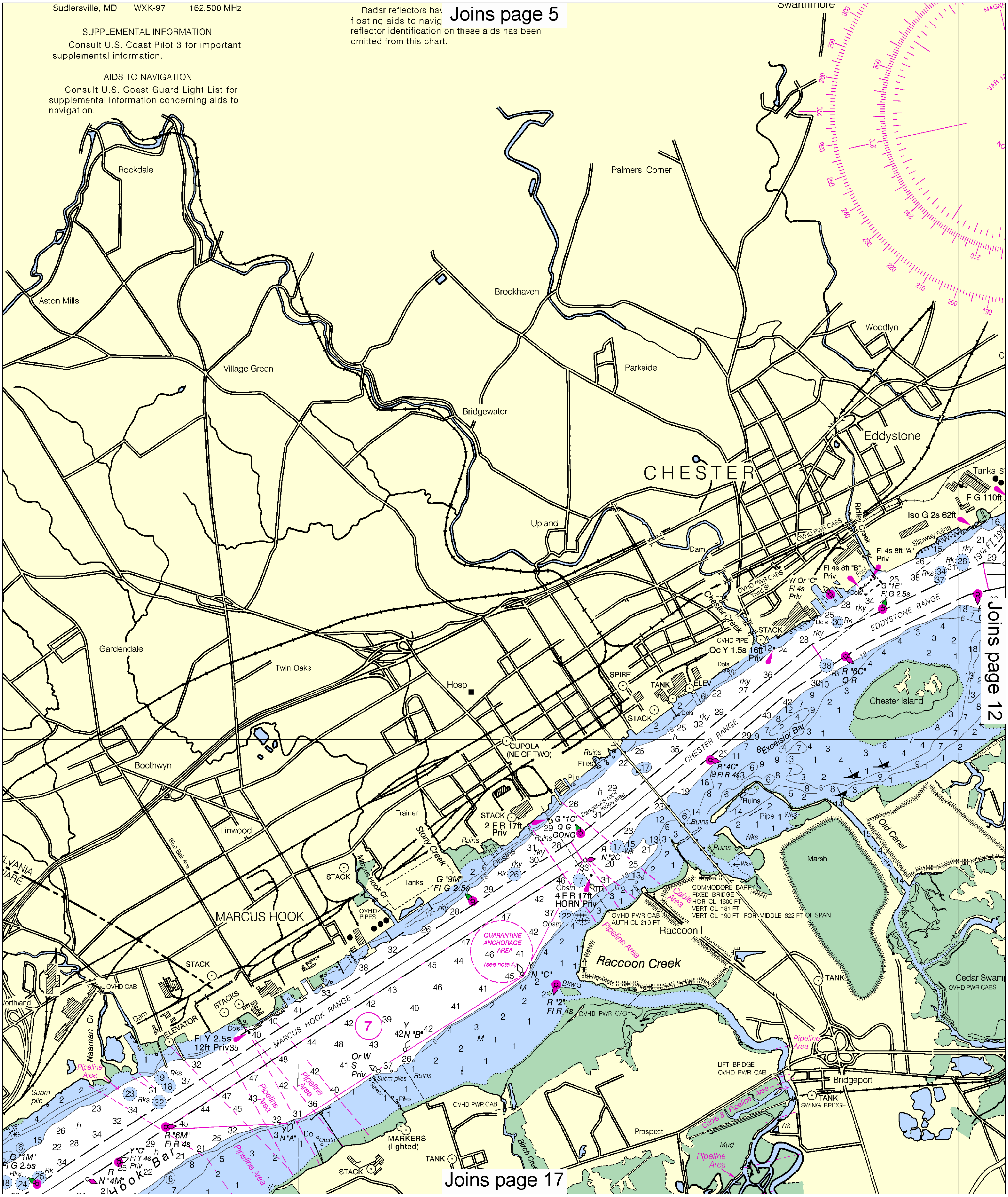
Joins page 16

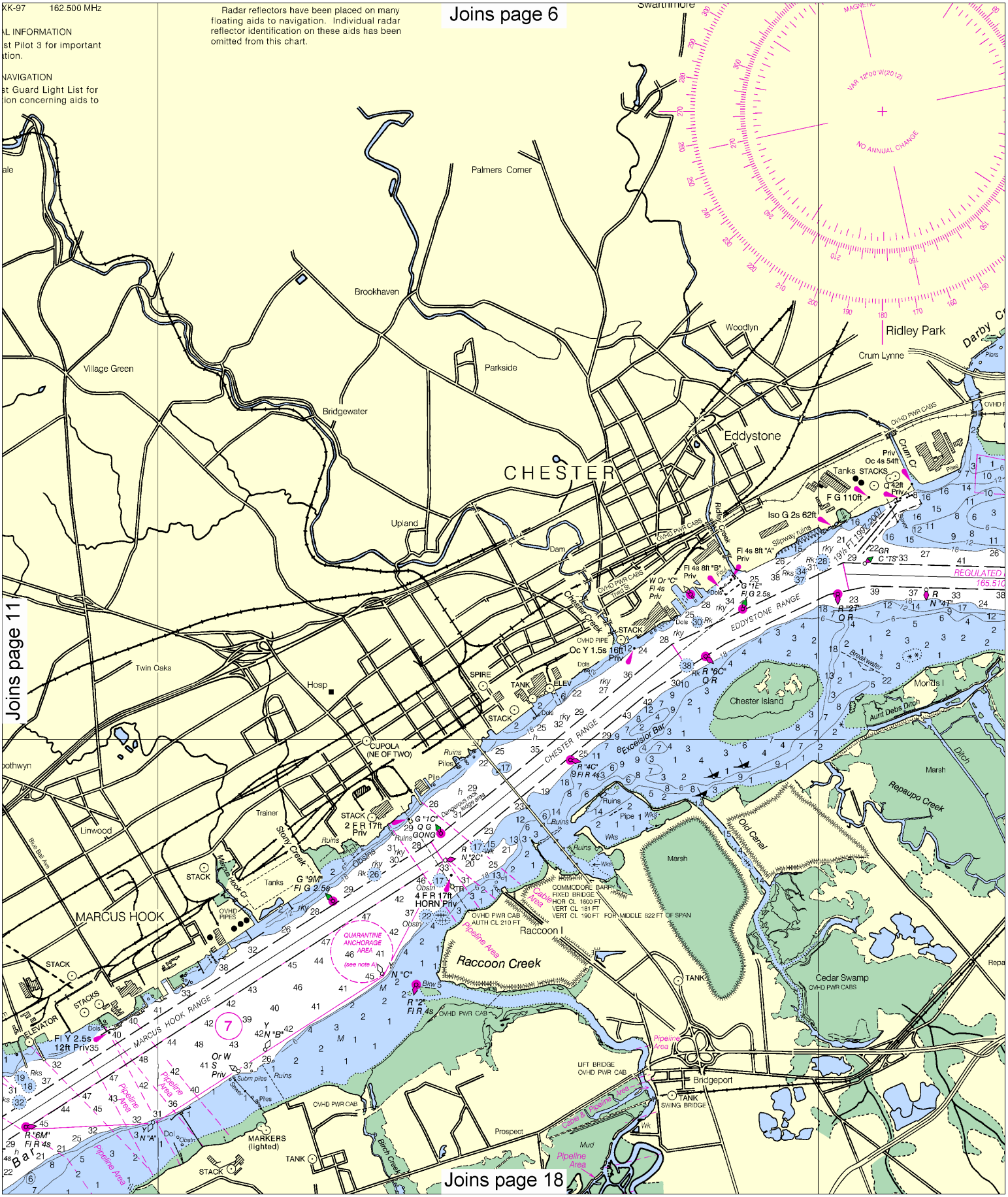
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:40,000~~

Nautical Miles
1 ½ 0 1 2 3
Yards
1000 0 1000 2000 3000 4000 5000

See Note on page 5.


Sudlersville, MD WXK-97 162.500 MHz
SUPPLEMENTAL INFORMATION
Consult U.S. Coast Pilot 3 for important supplemental information.
AIDS TO NAVIGATION
Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.
Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.
Joins page 5
Joins page 12
Joins page 17
Swarthmore
Rockdale
Palmers Corner
Aston Mills
Brookhaven
Woodlyn
Village Green
Parkside
Bridgewater
Eddystone
CHESTER
Upland
Gardendale
Twin Oaks
Hosp
Boothwyn
CUPOLA (NE OF TWO)
Linwood
MARCUS HOOK
Chester Island
Old Canal
Marsh
Raccoon I
Raccoon Creek
Cedar Swamp
Bridgeport
Prospect
Chester Creek
Ridley Creek
Stony Creek
Marcus Hook Cr
Naaman Cr
Birch Creek
EDDYSTONE RANGE
CHESTER RANGE
MARCUS HOOK RANGE
Excelsior Bar
QUARANTINE ANCHORAGE AREA (see note A)
COMMODORE BARRY FIXED BRIDGE HOR CL 1600 FT VERT CL 181 FT VERT CL 190 FT FOR MIDDLE 822 FT OF SPAN
OVHD PWR CAB AUTH CL 210 FT
LIFT BRIDGE OVHD PWR CAB
TANK SWING BRIDGE
MARKERS (lighted)
Pipeline Area
Cable Area
Cable & Pipeline Area
Dangerous rock ledge area
Tanks
F G 110ft
Iso G 2s 62ft
Fl 4s 8ft "A" Priv
Fl 4s 8ft "B" Priv
W Or "C" Fl 4s Priv
G "1E" Fl G 2.5s
R "6C" Q R
R "4C" Fl R 4s
G "1C" Q G GONG
STACK 2 F R 17ft Priv
R N "2C"
4 F R 17ft HORN Priv
G "9M" Fl G 2.5s
N "C"
R "2" Fl R 4s
Fl Y 2.5s 12ft Priv
Y N "B"
Or W S Priv
Y N "A"
R "6M" Fl R 4s
Y "C" Fl Y 4s Priv
G "1M" Fl G 2.5s
R N "4M"
Oc Y 1.5s 16ft Priv
Hook Bar



12

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:40,000~~

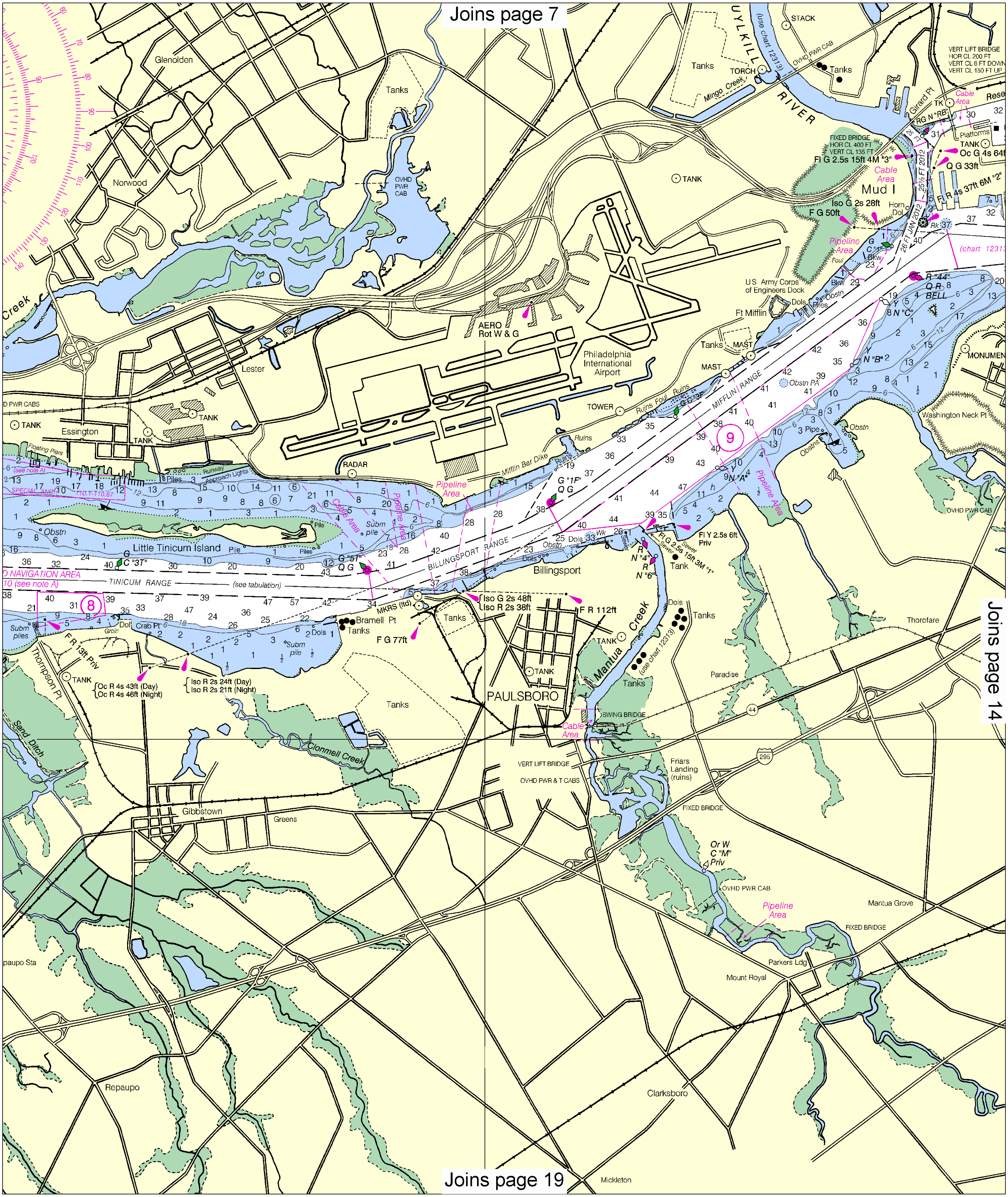
Nautical Miles

1 ½ 0 1 2 3

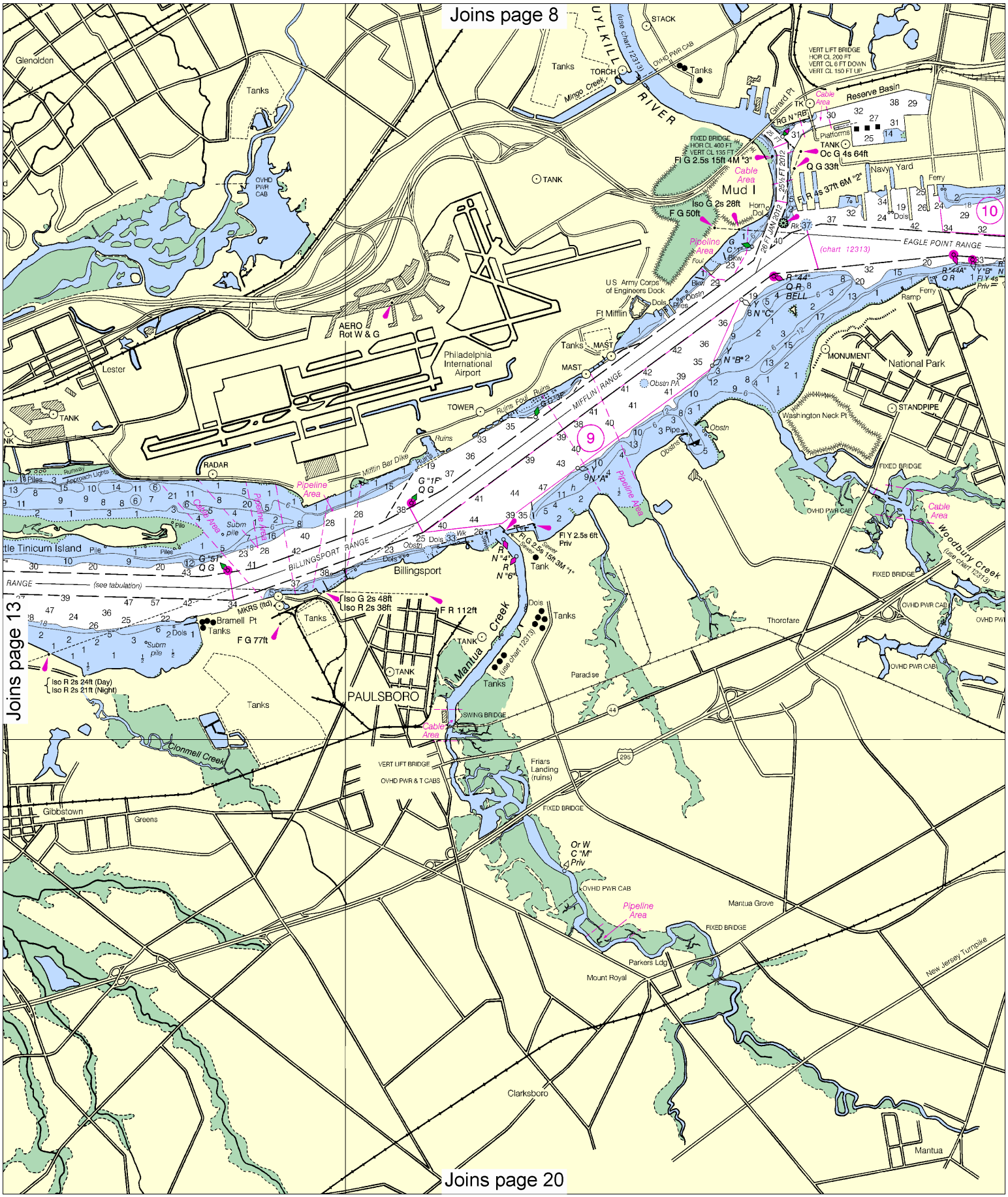
Yards

1000 0 1000 2000 3000 4000 5000

See Note on page 5.



Joins page 7
Joins page 14
Joins page 19
Glenolden
Norwood
Tanks
OVHD PWR CAB
Essington
Lester
TANK
RADAR
TOWER
AERO Rot W & G
Philadelphia International Airport
Mifflin Bar Dike
Ft Mifflin
US Army Corps of Engineers Dock
MAST
Mud I
SCHUYLKILL RIVER
Mingo Creek
TORCH
STACK
Girard Pt
FIXED BRIDGE HOR CL 400 FT VERT CL 135 FT
VERT LIFT BRIDGE HOR CL 200 FT VERT CL 6 FT DOWN VERT CL 150 FT UP
Fl G 2.5s 15ft 4M "3"
Oc G 4s 64ft
Q G 33ft
Fl R 4s 37ft 6M "2"
Iso G 2s 28ft
F G 50ft
R "44" Q R BELL
Cable Area
Pipeline Area
MIFFLIN RANGE
BILLINGSPORT RANGE
TINICUM RANGE
Little Tinicum Island
G "1F" Q G
G "5T" Q G
G C "3T"
Fl Y 2.5s 6ft Priv
Fl G 2.5s 15ft 3M "1"
R N "4"
R N "6"
Billingsport
Iso G 2s 48ft
Iso R 2s 38ft
F R 112ft
F G 77ft
Bramell Pt
MKRS (lfd)
Thompson Pt
F R 13ft Priv
Oc R 4s 43ft (Day) Oc R 4s 46ft (Night)
Iso R 2s 24ft (Day) Iso R 2s 21ft (Night)
Crab Pt
PAULSBORO
Mantua Creek
SWING BRIDGE
VERT LIFT BRIDGE
OVHD PWR & T CABS
Clonmell Creek
Gibbstown
Greens
Friars Landing (ruins)
FIXED BRIDGE
Or W C "M" Priv
Paradise
Thorofare
Washington Neck Pt
Mantua Grove
Parkers Ldg
Mount Royal
Repaupo
Clarksboro
Mickleton
Sand Ditch



14

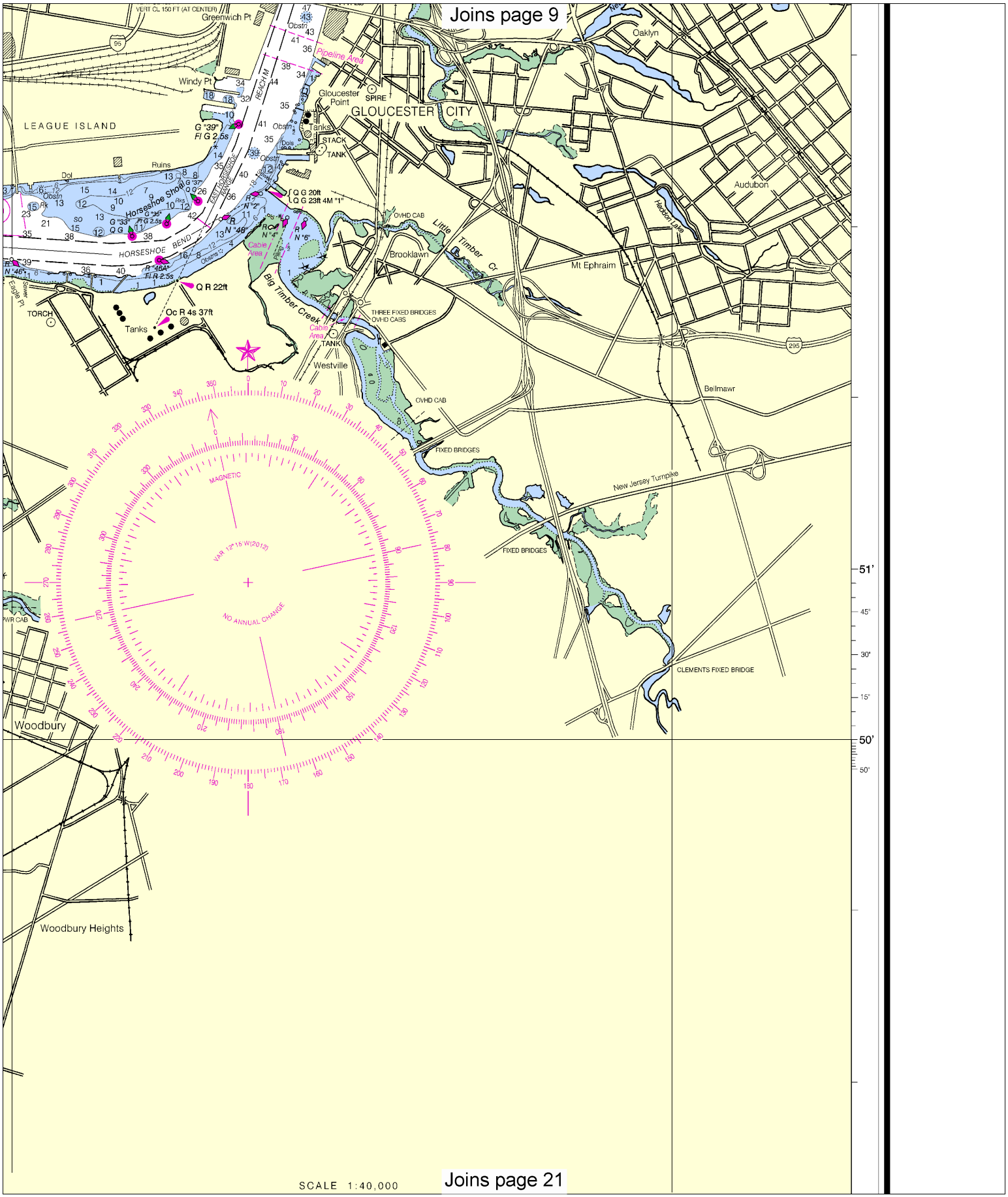
Note: Chart grid lines are aligned with true north.

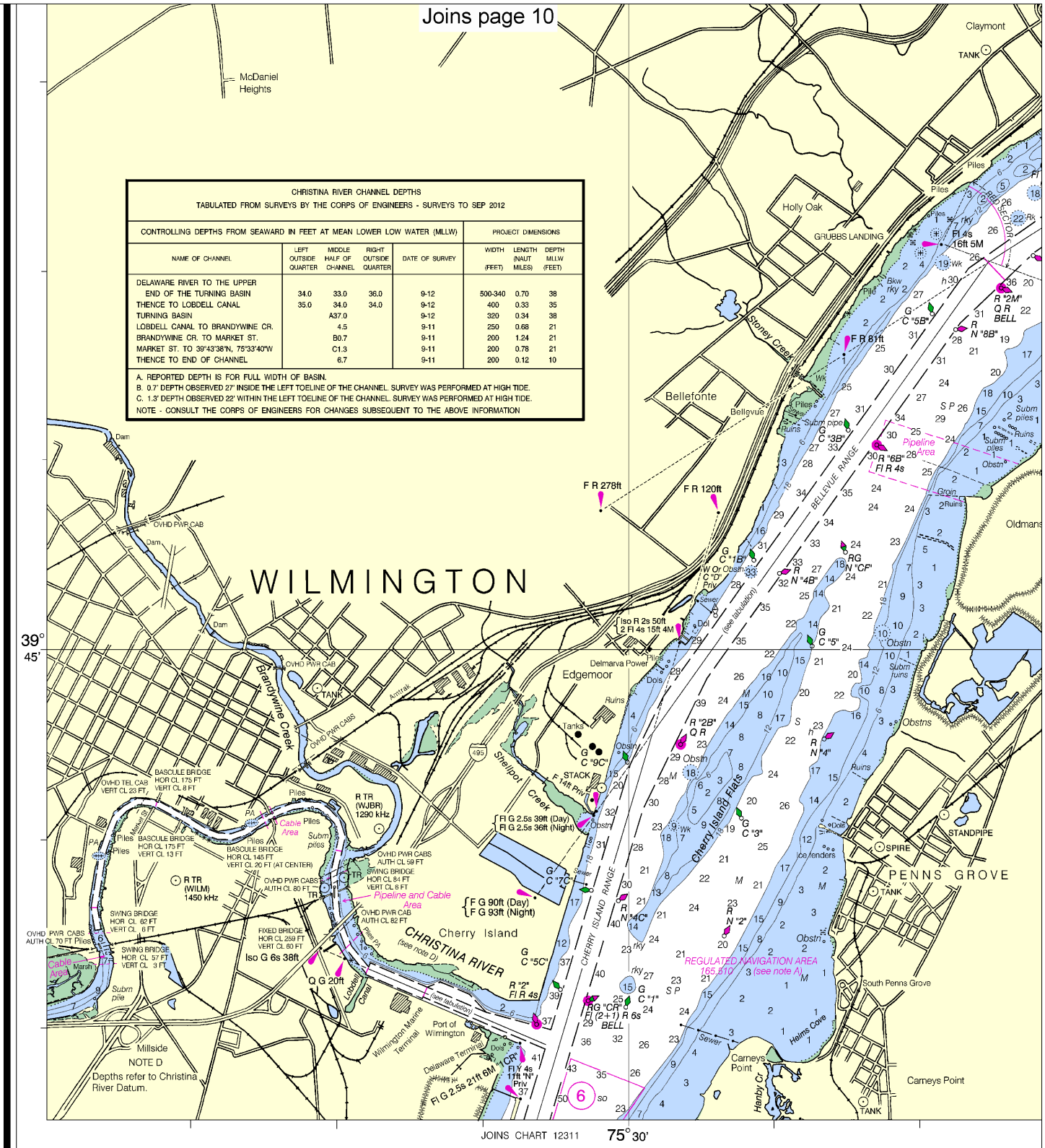
Printed at reduced scale. ~~SCALE 1:40,000~~

Nautical Miles: 1 ½ 0 1 2 3

Yards: 1000 0 1000 2000 3000 4000 5000

See Note on page 5.


Joins page 9
Greenwich Pt
Windy Pt
LEAGUE ISLAND
Ruins
Horseshoe Shoal
HORSESHOE BEND
Q R 22ft
Oc R 4s 37ft
Tanks
TORCH
Gloucester Point
SPIRE
GLOUCESTER CITY
Tanks
STACK
TANK
Pipeline Area
Oaklyn
Audubon
Haddon Lake
Mt Ephraim
Brooklawn
Little Timber Cr
Big Timber Creek
OVHD CAB
THREE FIXED BRIDGES
OVHD CABS
Cable Area
Westville
Bellmawr
FIXED BRIDGES
New Jersey Turnpike
CLEMENTS FIXED BRIDGE
MAGNETIC
VAR 12° 15 W(2013)
NO ANNUAL CHANGE
Woodbury
Woodbury Heights
51'
45'
30'
15'
50'
50'
SCALE 1:40,000
Joins page 21



56th Ed., May / 12 ■ Corrected through NM May 5/12
Corrected through LNM May 1/12

12312

CAUTION

This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

This nautical chart has been designed to promote safe navigation. Th Ocean Service encourages users to submit corrections, additions, or com improving this chart to the Chief, Marine Chart Division (N/CS2), Natior Service, NOAA, Silver Spring, Maryland 20910-3282.

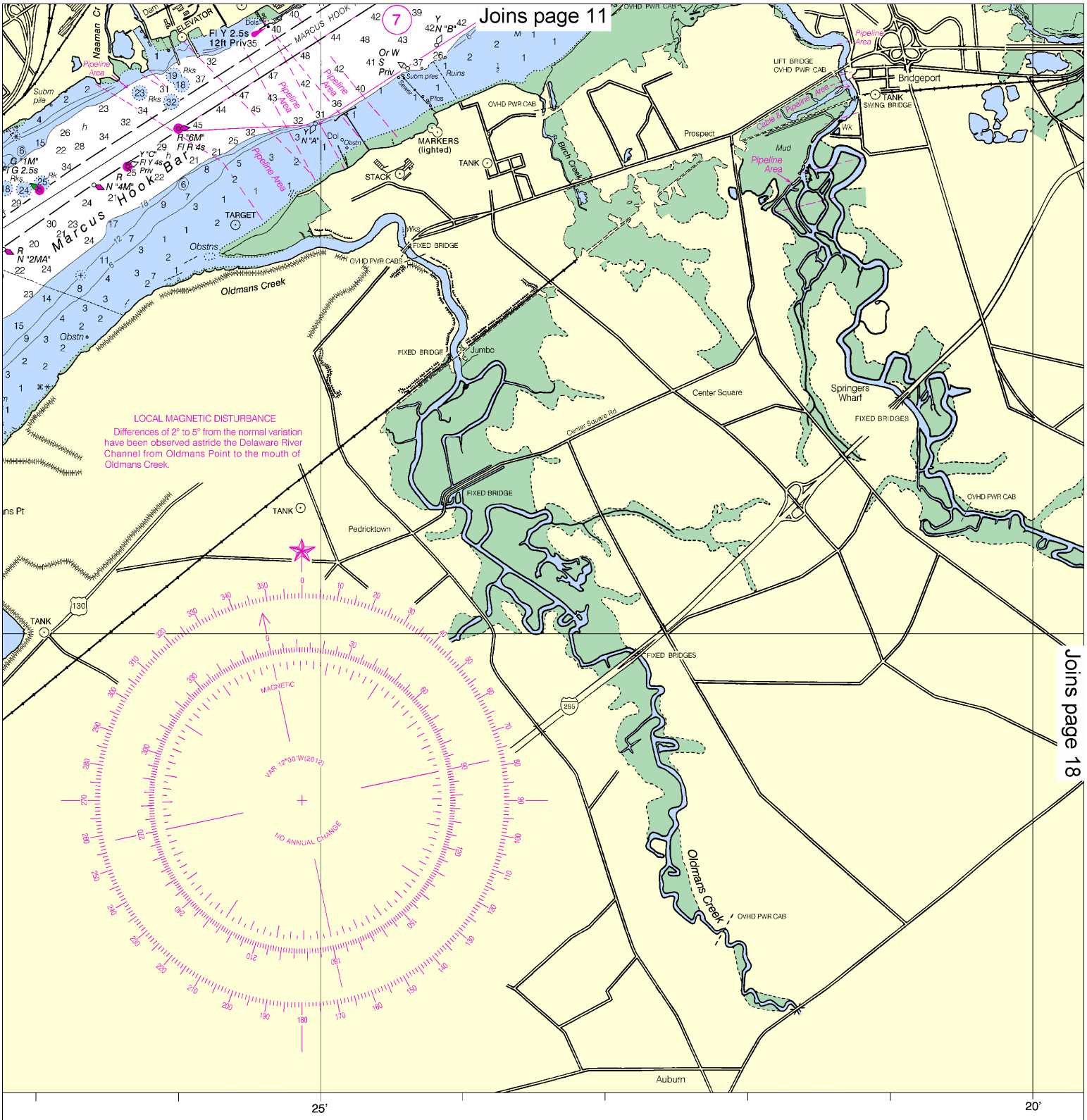
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:40,000~~

Nautical Miles: 1 ½ 0 1 2 3

Yards: 1000 0 1000 2000 3000 4000 5000

See Note on page 5.



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NOAA and its partner, OceanGrafix, offer this chart updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts or contact NOAA at 1-800-584-4683, http://NauticalCharts.gov, help@NauticalCharts.gov, or OceanGrafix at 1-877-56CHART, http://OceanGrafix.com, or help@OceanGrafix.com.

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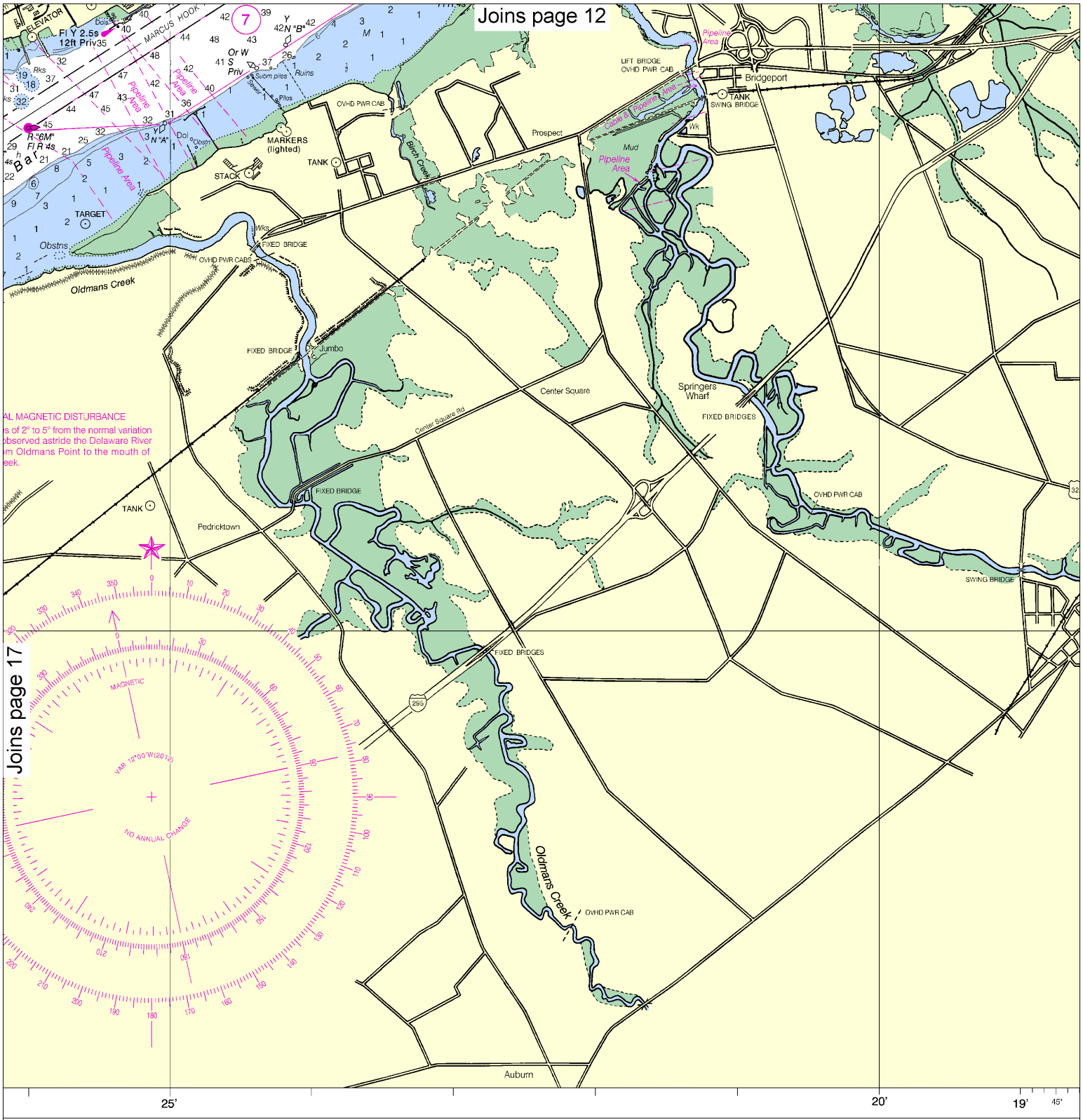

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NATIONAL OCEANIC AND ATMOSPHERIC
NATIONAL OCEAN SERV
COAST SURVEY

Note: Chart grid lines are aligned with true north.

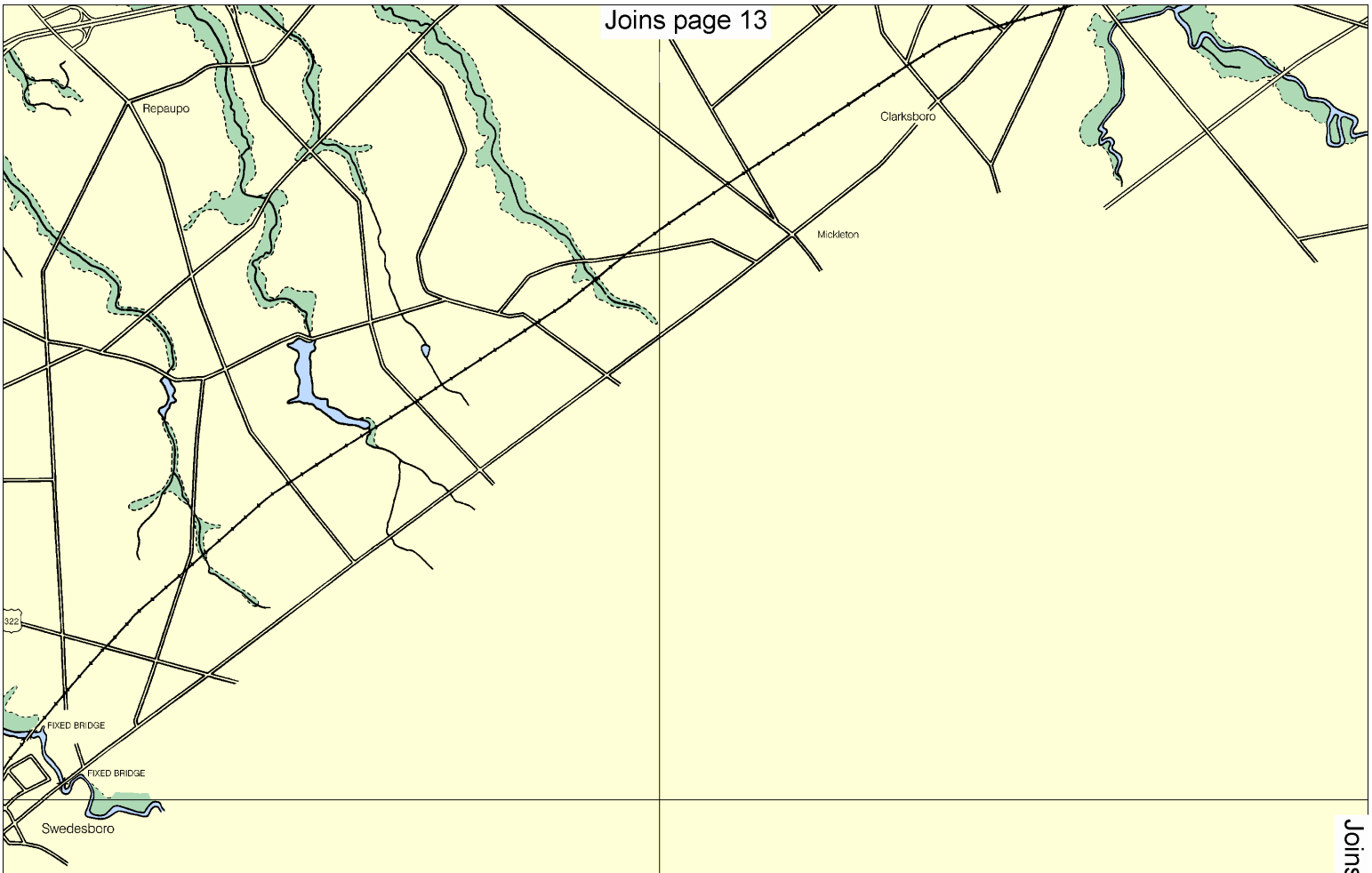
Printed at reduced scale. ~~SCALE 1:40,000~~

Nautical Miles: 1 ½ 0 1 2 3

Yards: 1000 0 1000 2000 3000 4000 5000

See Note on page 5.

Joins page 13



ANCHORAGE AREAS

110.157 (see note A)

Limits and assigned numbers of anchorage areas are shown in magenta.

6 7 8 9 GENERAL ANCHORAGES

10 NAVAL ANCHORAGE

30' 15' 18' 50'

15'

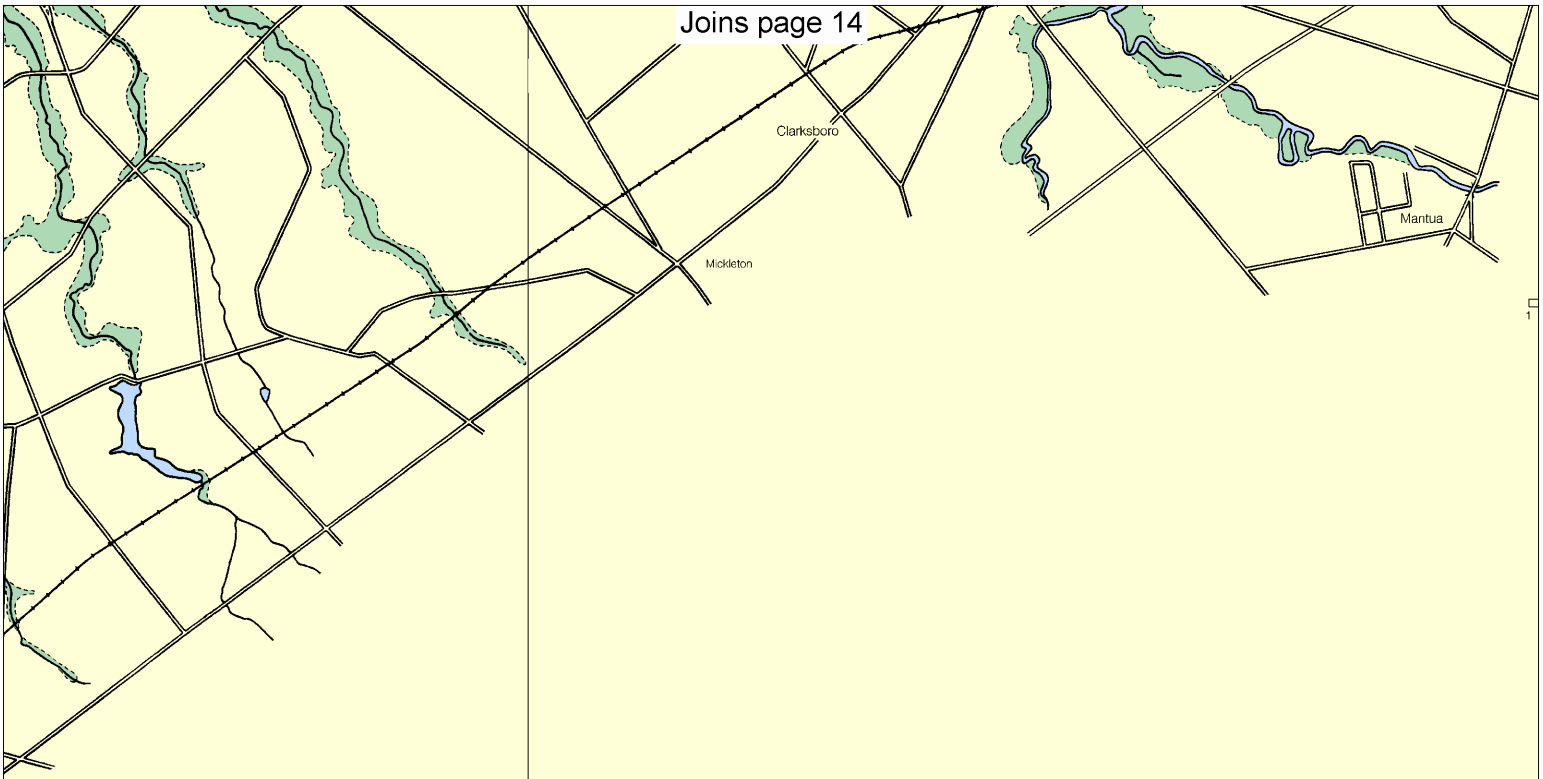
Joins page 20

, D.C.
OMMERCE
RIC ADMINISTRATION
RVICE

SOUNDINGS IN FEET

FATHOMS	1		2		3	4
FEET	6		12		18	24
METERS	1	2	3	4	5	6 7

Joins page 14



Joins page 19

ANCHORAGE AREAS

110.157 (see note A)

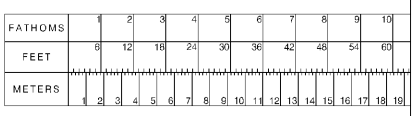
Assigned numbers of anchorage areas are shown in magenta.

7 8 9 GENERAL ANCHORAGES

10 NAVAL ANCHORAGE

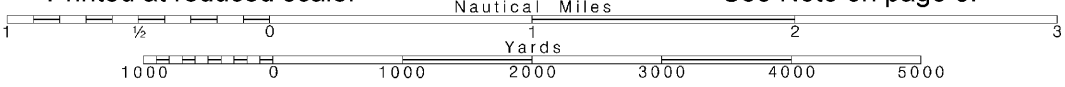
15'

SOUNDINGS IN FEET



Note: Chart grid lines are aligned with true north.

Printed at reduced scale. ~~SCALE 1:40,000~~



See Note on page 5.

Joins page 15

SCALE 1:40,000

Nautical Miles

1 ½ 0 1 2 3

Yards

1000 0 1000 2000 3000 4000 5000

LOGARITHMIC SPEED SCALE

1 2 3 4 5 6 7 8 9 10 15 20 25 30 40 50 60

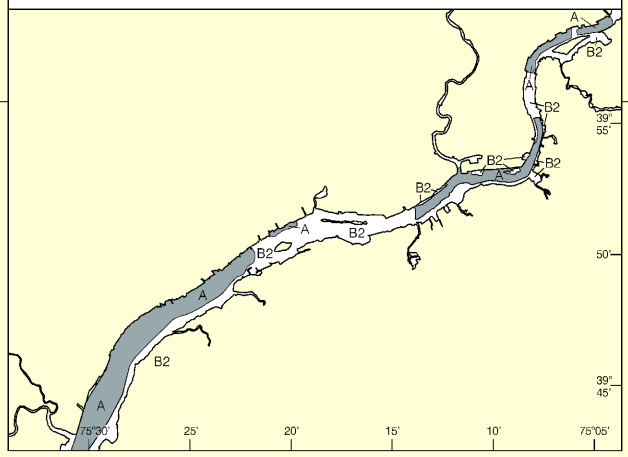
To find SPEED, place one point of dividers on distance run (in any unit) and the other on minutes run. Without changing divider spread, place right point on 60 and left point will then indicate speed in units per hour. Example: with 4.0 nautical miles run in 15 minutes, the speed is 16.0 knots.

SOURCE DIAGRAM

The outlined areas represent the limits of the most recent hydrographic survey information that has been evaluated for charting. Surveys have been banded in this diagram by date and type of survey. Channels maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

SOURCE

A	1990 - 2009	NOS Surveys	full bottom coverage
B2	1970 - 1989	NOS Surveys	partial bottom coverage



39° 45'

10'

75° 05'

778.5 X 1082.2 mm

ED. NO. 56

NSN 7642014010332

NGA REFERENCE NO. 12AHA12312

11 12 13 14 15 16 17

66 72 78 84 90 96 102

9 20 21 22 23 24 25 26 27 28 29 30 31

Delaware River, Wilmington to Philadelphia

SOUNDINGS IN FEET - SCALE 1:40,000

12312

EMERGENCY INFORMATION

VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.
Channel 9 – Communications between boats and ship-to-coast.
Channel 13 – Navigation purposes at bridges, locks, and harbors.
Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other vessels. Contact the other vessel, agree to another channel, and then switch.
Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.
Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!

All Hazards NOAA Weather Radio NOAA's National Weather Service

NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.
http://www.nws.noaa.gov/nwr/

Quick References

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Chart and chart related inquiries and comments	—	**http://ocsdata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs**
Chart updates (LNM and NM corrections)	—	**http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html**
Coast Pilot online	—	**http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm**
Tides and Currents	—	**http://tidesandcurrents.noaa.gov**
Marine Forecasts	—	**http://www.nws.noaa.gov/om/marine/home.htm**
National Data Buoy Center	—	**http://www.ndbc.noaa.gov/**
NowCoast web portal for coastal conditions	—	**http://www.nowcoast.noaa.gov/**
National Weather Service	—	**http://www.weather.gov/**
National Hurrican Center	—	**http://www.nhc.noaa.gov/**
Pacific Tsunami Warning Center	—	**http://ptwc.weather.gov/**
Contact Us	—	**http://www.nauticalcharts.noaa.gov/staff/contact.htm**

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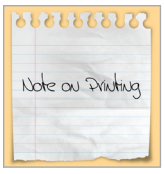

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NOAA's Office of Coast Survey The Nation's Chartmaker